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6 **IN THE UNITED STATES DISTRICT COURT**  
7 **FOR THE DISTRICT OF ARIZONA**  
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9 Puente, *et al.*,

10 Plaintiffs,

11 v.

12 City of Phoenix, *et al.*,

13 Defendants.  
14

No. CV-18-02778-PHX-JJT

**ORDER**

15 At issue is the admissibility of expert testimony provided by Dr. Edwina Barvosa  
16 on behalf of Plaintiffs. The Court considers Defendants' Motion to Exclude Opinions of  
17 Professor Edwina Barvosa Under Rule 702 and *Daubert* (Doc. 234, Mot.), Plaintiffs'  
18 Opposition (Doc. 284, Opp'n), and Defendants' Reply (Doc. 302, Reply). The Court finds  
19 this matter appropriate for decision without oral argument. *See* LRCiv 7.2(f). The Court  
20 will grant in part and deny in part Defendants' Motion for the reasons set forth below.

21 **I. LEGAL STANDARD**

22 Rule 702 of the Federal Rules of Evidence tasks the trial court with ensuring that  
23 any expert testimony provided is relevant and reliable. *Daubert v. Merrell Dow Pharm.,*  
24 *Inc. (Daubert)*, 509 U.S. 579, 589 (1999). "Evidence is relevant if it has any tendency to  
25 make a fact more or less probable than it would be without the evidence and the fact is of  
26 consequence in determining the action." Fed. R. Evid. 401. The trial court must first assess  
27 whether the testimony is valid and whether the reasoning or methodology can properly be  
28 applied to the facts in issue. *Daubert*, 509 U.S. at 592–93. Factors to consider in this

1 assessment include: whether the methodology can be tested; whether the methodology has  
 2 been subjected to peer review; whether the methodology has a known or potential rate of  
 3 error; and whether the methodology has been generally accepted within the relevant  
 4 professional community. *Id.* at 593–94. “The inquiry envisioned by Rule 702” is “a flexible  
 5 one.” *Id.* at 594. “The focus . . . must be solely on principles and methodology, not on the  
 6 conclusions that they generate.” *Id.*

7 The *Daubert* analysis is applicable to testimony concerning scientific and non-  
 8 scientific areas of specialized knowledge. *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S.  
 9 137, 141 (1999). However, the *Daubert* factors may not apply to testimony that depends  
 10 on knowledge and experience of the expert, rather than a particular methodology. *U.S. v.*  
 11 *Hankey*, 203 F.3d 1160, 1169 (9th Cir. 2000) (citation omitted) (finding that *Daubert*  
 12 factors do not apply to police officer’s testimony based on 21 years of experience working  
 13 undercover with gangs). An expert qualified by experience may testify in the form of  
 14 opinion if his or her experiential knowledge will help the trier of fact to understand  
 15 evidence or determine a fact in issue, as long as the testimony is based on sufficient data,  
 16 is the product of reliable principles, and the expert has reliably applied the principles to the  
 17 facts of the case. *See* Fed. R. Evid. 702; *Daubert*, 509 U.S. at 579.

18 The advisory committee notes on the 2000 amendments to Rule 702 explain that  
 19 Rule 702 (as amended in response to *Daubert*) “is not intended to provide an excuse for an  
 20 automatic challenge to the testimony of every expert.” *See Kumho Tire Co.*, 526 U.S.  
 21 at 152. “Vigorous cross-examination, presentation of contrary evidence, and careful  
 22 instruction on the burden of proof are the traditional and appropriate means of attacking  
 23 shaky but admissible evidence.” *Daubert*, 509 U.S. at 596 (citation omitted).

## 24 **II. ANALYSIS**

25 In their Motion to Exclude, Defendants offer three arguments in support of excluding  
 26 Dr. Barvosa’s testimony: 1) that Dr. Barvosa is not an expert in the relevant subject area; 2)  
 27 that Dr. Barvosa did not gather sufficient facts; and 3) that Dr. Barvosa did not use reliable  
 28 principles and methods. The Court will examine each of these arguments in turn.

1           **A.     Expertise in the Relevant Subject Area**

2           Defendants argue that Dr. Barvosa is improperly qualified to testify as an expert  
3 under Rule 702, which requires a witness to be qualified “by knowledge, skill, experience,  
4 training, or education.” Fed. R. Evid. 702. The witness must be an expert “in the relevant  
5 field.” *Kumho Tire Co.*, 526 U.S. at 152. Defendants contend that Dr. Barvosa’s opinion  
6 that every class member “developed a neural encoding of fear is, at bottom, a psychological  
7 claim” and that “the relevant field is psychology.” (Mot. at 17; Reply at 10.) Defendants  
8 then argue that, because Dr. Barvosa is not a psychologist, psychiatrist, or neurologist, she  
9 is not qualified in the relevant field.

10          To be sure, Dr. Barvosa is not an expert in clinical psychology. She possesses a  
11 Ph.D. in Political Science from Harvard University and is an interdisciplinary social  
12 scientist. She specializes in group identity formation and teaches classes on applied social  
13 and political theory in the Department of Feminist Studies at UC Santa Barbara. As  
14 Defendants point out, she is not a psychologist, psychiatrist, or neurologist. But “there are  
15 many different kinds of experts, and many different kinds of expertise.” *Kumho Tire Co.*,  
16 526 U.S. at 150. Moreover, Rule 702 describes education as merely one of a number of  
17 ways in which an expert may be qualified to testify.

18          Defendants acknowledge that Dr. Barvosa “may be an expert in some areas” but  
19 contend that she has “strayed far outside her area of expertise in this case.” (Mot. at 17.)  
20 However, this fails to recognize that Dr. Barvosa’s areas of expertise are not mutually  
21 exclusive from the areas of psychology or neuroscience. Rather, she has spent years  
22 studying and applying political theory, social psychology, and neuroscience. The fact that  
23 she does not possess a degree in psychology or have experience conducting clinical  
24 assessments will not preclude Dr. Barvosa from being qualified to testify in this matter.

25           **B.     Sufficient Facts**

26          Defendants also contend that Dr. Barvosa failed to gather “sufficient facts or data”  
27 as is required by Rule 702(b). They argue that Dr. Barvosa “cherry-picked” favorable data  
28 but ignored other important facts because she did not review the Phoenix Police

1 Department's After-Action Report or any officer incident reports, and she only reviewed  
 2 three officer depositions. Furthermore, Dr. Barvosa only watched eleven abbreviated video  
 3 clips of the incident provided to her by Plaintiffs, but she did not watch the twenty-three  
 4 full videos Defendants used in their opposition to class certification. Defendants further  
 5 contend that this is particularly concerning because Dr. Barvosa's deposition revealed  
 6 inconsistencies with this Court's recitation of the facts in its class certification ruling.

7 Rule 702 is not intended to provide a means to exclude expert testimony "on the  
 8 ground that the court believes one version of the facts and not the other." Fed. R. Evid. 702  
 9 Advisory Comm. Notes (2000). This Court's synthesis of the facts in the class certification  
 10 ruling was "sufficiently accurate for the purpose of resolving" that motion. (Doc. 91, Order  
 11 Granting in Part and Denying in Part Plaintiffs' Amended Motion for Class Certification  
 12 at 1, n.1.) But it does not follow that those are the facts Dr. Barvosa must consider in  
 13 forming her opinion. The Court finds any disagreement as to the sufficiency of the facts a  
 14 matter more appropriate for "[v]igorous cross-examination" and "presentation of contrary  
 15 evidence" during trial. *See Daubert*, 509 U.S. at 596.

### 16 **C. Reliable Principles and Methods**

17 Defendants also argue that Dr. Barvosa's methods lack reliability. Rule 702 requires  
 18 that expert testimony be the product of "reliable principles and methods" Fed. R. Evid.  
 19 702(c). District courts perform a "gatekeeping function" to assess the reliability of expert  
 20 testimony. *Daubert*, 509 U.S. at 597. Factors to consider in determining reliability include:  
 21 1) whether the methodology can be tested; 2) whether the methodology has been subjected  
 22 to peer review; 3) whether the methodology has a potential rate of error; and 4) whether  
 23 the methodology has been generally accepted within the relevant professional community.  
 24 *Daubert*, 509 U.S. at 592–94. These factors are not exclusive; they serve merely as  
 25 guideposts. *Kumho Tire*, 526 U.S. at 141. Thus, courts may also consider "[w]hether the  
 26 expert has unjustifiably extrapolated from an accepted premise to an unfounded  
 27 conclusion." Fed. R. Evid. 702 Advisory Comm. Notes (2000). Courts may exclude  
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1 testimony where there is “simply too great an analytical gap between the data and the  
2 opinion proffered.” *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997).

3 To form her opinion here, Dr. Barvosa took “about a week’s time” reviewing  
4 “documentary material” provided to her, including videos of the incident. (Doc. 284-3, Ex.  
5 A, Barvosa Dep. at 62.) She did not interview any class members, conduct any kind of test  
6 or assessment on any class members, or review any of their medical or psychological  
7 records. (Doc. 235-2, Ex. 2, Barvosa Dep. at 164.) Based on her review of the materials  
8 combined with her knowledge on neural encoding, she opines that every member of the  
9 class has suffered a common harm, which is the neural encoding of fear associated with  
10 public assembly.

11 Defendants challenge the reliability of Dr. Barvosa’s principles and methods on the  
12 grounds that she did not speak to any class members or account for individual differences  
13 in the class members, that the declarations and depositions she reviewed do not support her  
14 opinion, and that the publications she cites do not support her opinion either. When asked  
15 about the proper method to evaluate neural encoding, Dr. Barvosa responded that to verify  
16 a neural encoding of fear in class members, one “would ask them” or “would interview the  
17 class members.” (Ex. 2, Barvosa Dep. at 193, 172.) Dr. Barvosa failed to do so, and she  
18 thus failed to exercise her own principal method.

19 Dr. Barvosa also explains that an event will only cause a neural encoding of fear in  
20 an individual if it overwhelms that individual’s “capacity to cope.” (Ex. 2, Barvosa Dep. at  
21 199.) She elaborates by stating that whether an event overwhelms someone’s capacity to  
22 cope is “actually specific to particular individuals.” (Ex. 2, Barvosa Dep. at 199.) Yet Dr.  
23 Barvosa’s opinion that every class member now has a neural encoding of fear is  
24 inconsistent with the principle that the threshold for the creation of this encoding is  
25 particularized to individuals.

26 Furthermore, Dr. Barvosa only reviewed about sixty-five declarations or  
27 depositions from the class members. Meanwhile, the class consists of “at least hundreds,  
28 and likely thousands” of individuals. (Doc. 127, Plaintiffs’ Reply in Support of Motion for

1 Class Certification at 14.) While these declarations and depositions may provide some  
2 insight into the minds of some members,<sup>1</sup> this method of review is not a reliable one in  
3 forming the opinion that every class member now has a neural encoding of fear.

4 Finally, Dr. Barvosa cites a number of publications by neuroscientists in support of  
5 her opinion. Most of the publications discuss only general principles of neuroscience,  
6 including the basic neurological mechanism by which the class members could have  
7 suffered their alleged harm, and Dr. Barvosa uses them simply to provide a background.  
8 But some of the publications regard trauma specifically, and these do not support the  
9 opinion that there was a uniform class-wide harm because Dr. Barvosa states that not every  
10 class member is “necessarily traumatized.” (Ex. 2, Barvosa Dep. at 158.) The Court must  
11 limit Dr. Barvosa’s testimony accordingly.


### 12 **III. CONCLUSION**

13 Dr. Barvosa’s opinion that every member suffered the same categorical harm is  
14 founded on her expert opinions regarding survival system scripts and neural encoding, as  
15 summarized in her expert report. These opinions identify the basic mechanisms by which  
16 Dr. Barvosa believes the class members could have suffered their harm. Defendants have  
17 not challenged these underlying opinions, and the Court finds that they satisfy the  
18 admissibility requirements of Rule 702 and *Daubert*. However, the principles and methods  
19 that Dr. Barvosa used to conclude that *every* class member suffered a common harm are  
20 unreliable and require too great an analytical leap. The Court will therefore exclude Dr.  
21 Barvosa’s testimony to the extent she opines that each member of the class did, in fact,  
22 suffer the same categorical harm of a neural encoding of fear of public assembly.

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27 <sup>1</sup> Defendants cite certain substantive paragraphs repeated in various declarations and argue  
28 that these “cookie-cutter copies” offer *no* meaningful insight into the mind of *any* particular  
class member. However, the declarations are not so identical as to render each one  
unreliable in analyzing the mental state of its declarant.

Dated this 29th day of March, 2021.

2021.

  
Honorable John J. Tuchi  
United States District Judge